

Title (en)

METHOD AND APPARATUS FOR SEQUESTERING CARBON DIOXIDE FROM A SPENT GAS

Title (de)

VERFAHREN UND VORRICHTUNG ZUR SEQUESTRIERUNG VON KOHLENDIOXID AUS EINEM AUSGEGEBENEN GAS

Title (fr)

PROCÉDÉ ET APPAREIL POUR SÉQUESTREER DU DIOXYDE DE CARBONE À PARTIR D'UN GAZ USÉ

Publication

EP 2421941 A4 20130109 (EN)

Application

EP 10767571 A 20100419

Priority

- US 2010031556 W 20100419
- US 17099909 P 20090420

Abstract (en)

[origin: US2010264374A1] A method and apparatus for sequestering carbon dioxide from a waste gas and reusing it as a recycled gas without emissions concerns, including: given a gas source divided into a process gas and a waste gas: mixing the process gas with a hydrocarbon and feeding a resulting feed gas into a reformer for reforming the feed gas and forming a reducing gas; and feeding at least a portion of the waste gas into a carbon dioxide scrubber for removing at least some carbon dioxide from the waste gas and forming a carbon dioxide lean gas that is mixed with the reducing gas. Optionally, the method also includes feeding at least a portion of the waste gas into the carbon dioxide scrubber for removing at least some carbon dioxide from the waste gas and forming a fuel gas after the addition of a hydrocarbon that is fed into the reformer. Optionally, the gas source and the reducing gas are associated with a direct reduction process for converting iron oxide to metallic iron in a reduction furnace that utilizes the reducing gas, optionally after some modification, and produces the gas source.

IPC 8 full level

C01B 32/50 (2017.01); **C10L 3/00** (2006.01); **B01D 53/14** (2006.01); **C21B 13/00** (2006.01)

CPC (source: EP KR US)

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Citation (search report)

- [I] WO 9942624 A1 19990826 - HYLSA SA [MX]
- See references of WO 2010123796A1

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